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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,022	12/17/2001	Paul K. Smith	PKS-101.2 US (8494/85049)	7237
24628	7590	02/13/2004	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			BARRY, CHESTER T	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,022

Applicant(s)

SMITH ET AL.

Examiner

Chester T. Barry

Art Unit

1724

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-50 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 – 9, drawn to a polymer, classified in class 524, subclass 80.
- II. Claims 10 - 18, drawn to a process for forming aseptic water, classified in class 422, subclass 1.
- III. Claims 19 - 30, drawn to an apparatus for preparing aseptic water, classified in class 422, subclass 129.
- IV. Claims 31 - 41, drawn to a process for oxidizing or removing trivalent arsenic from an aqueous medium, classified in class 210, subclass 683.
- V. Claim 42, drawn to alumina, classified in class 502, subclass 414.
- VI. Claims 43-50, drawn to a process for removing specified heavy metals from an aqueous medium, classified in class 210, subclass 688.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V has separate utility such as a heterogeneous catalyst support. See MPEP § 806.05(d).

Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process as claimed can be practiced by another materially different apparatus, e.g., one in which the polymeric medium is not "supported" but rather is freely suspended throughout the liquid, e.g., by dint of mixing or upflow fluidization. Alternatively, the apparatus as claimed can be used to practice another and materially different process, e.g., oxidation of trivalent arsenic or removal of heavy metals from water.

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Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product, such as a water-insoluble polymeric medium having a plurality of polymerized N-pyridinium vinylbenzyl triiodide moieties whose pyridinium rings do not bear two substituents, R₁ and R₂, that are independently a hydrido or a C₁-C₄ alkyl group. Claim 15 element (a) reciting a polymeric medium comprising N-pyridinium vinylbenzene triiodide moieties more broadly defined than the polymeric medium of claim 1 is evidence that patentability of this process claim does not rely on the particular structure of the product for patentability.

Inventions V and VI are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product, such as alumina not containing meta-periodate ions. Claim 46 element (a) reciting alumina that is more broadly defined than the alumina of claim 43 insofar as the former alumina is not limited to alumina containing "meta-periodate ions" whereas the later

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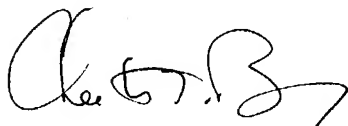
alumina need only contain "oxidized iodine species" is evidence that patentability of this process claim does not rely on the particular structure of the product for patentability.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Lambert is cited merely to show its patent number is 3 923 665 not 3 923 655.



571-272-1152 direct

2/8/04

CHESTER T. BARRY
PRIMARY EXAMINER